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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/641,147

08/17/2000

Sung- Oh Hwang

678-522 (P9490)

4729

28249

7590

02/13/2006

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EXAMINER

CHANG, EDITH M

ART UNIT

PAPER NUMBER

2637

DATE MAILED: 02/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/641,147

Applicant(s)

HWANG ET AL.

Examiner

Edith M. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-13 and 24-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-13 and 24-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 21, 2005 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 9-16 and 24-35 are rejected under 35 U.S.C. 102(a) as being anticipated by Ericsson (Multiple scrambling codes TSGR1#5(99)724), 3GPP TS 25.213 V2.00 (1999-4) Spreading and modulation and 3GPP TS 25.211 V2.00 (1999-04) Mapping of transport channels onto physical channels.

Regarding **claims 9, 13, 24 & 30**, the 3GPP discloses a channel code communication, the Universal Terrestrial Radio Access (UTRS) for the 3G mobile

communication comprising at least a base station and at least a mobile station and their methods.

The base station in each cell uses (*scrambling*) a primary scrambling code divided into 32 scrambling groups (ID, 5.2.2, the first paragraph, TSGR1#5(99)724) *assigned to (identified)* it for *transmitting* over the primary CCPCH (as the *common channel*, 5.2.2 the third paragraph, TSGR1#5(99)724), and other downlink physical channels comprising DPCH (as the *data channel*, 5.3.2 TS 25.211 V2.00 & 5.1 TS 25.213 V2.0.0) can be transmitted with a secondary scrambling code from the set (ID) associated with the primary scrambling code (5.2.2, the third paragraph, TSGR1#5(99)724) to extend scrambling codes to avoid code limitation when the capacity is increased (5.2.2, the first paragraph and the second paragraph in the brackets, TS 25.213 V2.0.0). These downlink channels are transmitted to the mobile station;

The mobile station *acquires* the primary scramble code during synchronization in the cell search (5.3.3.3, the first paragraph, TS 25.211 V2.0.0), *despreading* a received data signal scrambled by the secondary code, with a *generated* secondary scrambling code from the set (ID) associated with the primary scrambling code in one the 32 scrambling groups (ID),

Wherein the scrambling codes (the primary and the secondary)  $C_{\text{scramb}}$  are *complex scrambling* codes (5.1, Figure 10 & the first paragraph, TS 25.213 V2.0.0).

Regarding **claims 10, 14, 27 & 33**, in the first paragraph of 5.2.2 (TSGR1#5(99)724), it discloses that the primary scrambling codes is divided into 32

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scrambling code groups, each consisting of 16 primary scrambling codes and there is a one-to-one mapping between each primary scrambling code and the set of secondary scrambling codes, hence one group of the primary scrambling codes comprising 16 primary scrambling codes needs at least 16 sets of secondary scrambling codes that at least 4 bits to identify the set (ID) of the secondary scrambling codes.

Regarding **claims 11, 15, 25 & 31**, in the third paragraph of 5.2.2 (TSGR1#5(99)724), it discloses the primary Common Control Physical Channel (P-CCPCH, page 29, Figure 22, TS25.211 v2.0.0).

Regarding **claims 12, 16, 26, 28, 32 & 34**, in the third paragraph of 5.2.2 (TSGR1#5(99)724) discloses that other downlink physical channels comprising DPCH (as the *data channel*, 5.3.2 TS 25.211 V2.00 & 5.1 TS 25.213 V2.0.0) can be transmitted with a secondary scrambling code from the set (ID) associated with the primary scrambling code, wherein the downlink DPCH is multiplexed with a downlink DPDCH (data channel in service) and a downlink DPCCH (control channel) (5.3.2 at page 16 of TS 25.211 V2.0.0).

Regarding **claims 29 & 35**, in page 21 (TS 25.213 V2.0.0) discloses that the complex scrambling code sequence  $C_{\text{scramb}(i)} = z'_n(i) + j z'_n(i+M)$ , wherein the imaginary part  $z'_n(i+M)$  is shifted real part  $z'_n(i)$  by M period (Table 6, page 22).

### **Conclusion**

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M. Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay K. Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang  
January 27, 2006

  
**KHAI TRAN**  
**PRIMARY EXAMINER**